Sub-Element 2.b¾Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency

What the Policy Says

Intent

NUREG-0654 provides that OROs have the capability to use all available data to independently project integrated dose and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation. OROs base these choices on PAGs from the ORO's plans and procedures or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (for example, other affected OROs), availability of appropriate in-place shelter, weather conditions, and situations that create higher than normal risk from evacuation.

Minimum Frequency

Criteria 2.b.1 and 2.b.2 are to be evaluated every exercise.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654, I.8, 10 and Supplement 3).

Extent of Play

OROs authorized to send emergency workers into the plume exposure pathway EPZ should demonstrate a capability to meet the criterion based on their emergency plans and procedures.

Responsible OROs should demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of pre-authorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels.

As appropriate, OROs should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure, based on the ORO's plan and/or procedures or projected thyroid dose compared with the established Protective Action Guides (PAGs) for KI administration.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the Extent of Play agreement.

What the Policy Says

Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PAD) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654, J.9, 10.f, m).

Extent of Play

OROs should have the capability to make both initial and subsequent PADs. They should demonstrate the capability to make initial PADs in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and PARs from the utility and ORO staff. The dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision-makers should demonstrate the capability to change protective actions as appropriate based on these projections.

If the ORO has determined that KI will be used as a protective measure for the general public under offsite plans, then the ORO should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement sheltering and evacuation. This decision should be based on the ORO's plan and/or procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process should involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision-making, OROs should communicate and coordinate PADs with affected OROs. OROs should demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

All decision- making activities by ORO personnel must be performed based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the Extent of Play agreement.

Preparing to Evaluate These Criteria

Before the exercise, determine, according to the ORO's plan/procedures and the Extent of Play agreement:

Criterion 2.b.1

- Who (identify by title and organization) develops Protective Action Recommendations (PARs)?
- Are PARs based on dose projections?
- Does the ORO develop or independently validate dose projections?
- Does the ORO calculate projected dose, including quantities and units that are the same as the PAGs to which they will be compared?
- Who (identify by title and organization) transmits PARs to decisionmakers?

Criterion 2.b.2

- Who (identify by title and organization) makes Protective Action Decisions?
- Is the use of KI for the general public specified? If so, who makes this decision?
- How is the general public notified to ingest KI, if applicable?
- Do PADs need to be coordinated with other jurisdictions?

During the Exercise

During the exercise, in addition to evaluating activities related to the items listed above, be sure to:

Criterion 2.b.1

- Note whether PARs were developed based on, for example:
 - > Information/recommendations from the licensee (plant),
 - > Field monitoring data,
 - > Release data, and/or
 - Meteorological data.
- Note whether differences in dose projection greater than a factor of ten were discussed with the licensee. If so, were the differences resolved and considered in the PAR?
- Observe whether changes were made to the PARs. If so, note times of the changes and document on what basis changes were made (e.g., field monitoring data, exposure rates, release data, meteorological data).
- Observe whether the plume location was plotted on a map on the basis of monitoring data received by the ORO.
- Note if the PARs were coordinated with other political jurisdictions (e.g., other affected OROs).

Criterion 2.b.2

- Note whether initial PADs are made based on:
 - Notification from the licensee,
 - > Assessment of plant conditions and/or radiological releases, or
 - > PARs from the utility and ORO staff (dose assessment group).
- Note whether the subsequent PADs are made based on:
 - > Subsequent dose projections,
 - Field monitoring data, or
 - > Information on plant conditions.
- Evaluate the decision-maker(s) capability to change protective actions as appropriate based on new information.
- Follow the KI decision-making process. Did the decision require coordination with assessment and decision-making staff and was it based on projected thyroid dose compared with the established PAG.
- Note how KI information was provided to those who needed to take it.
 Evaluate message content for timeliness and clarity on KI instructions.